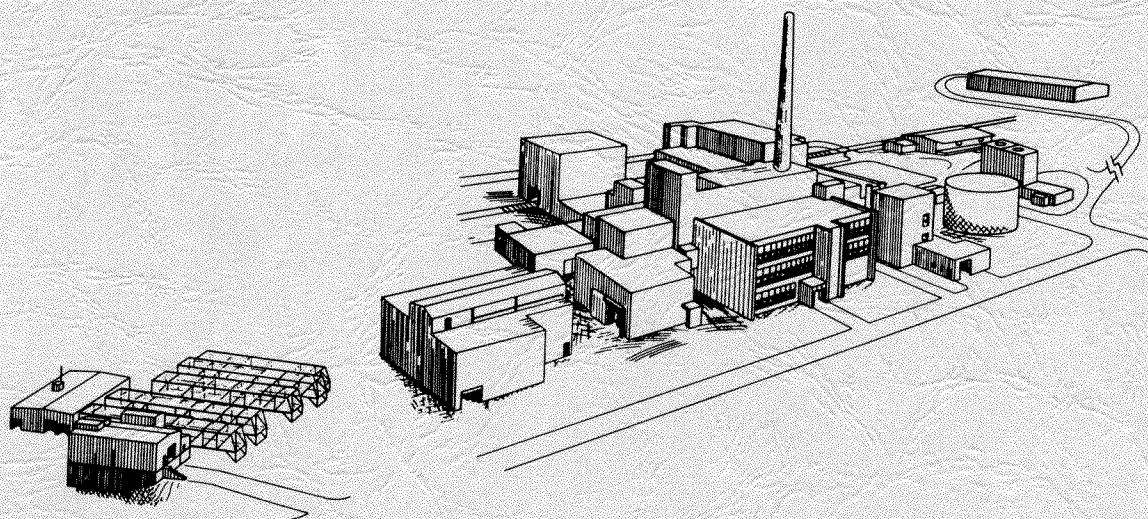


WEST VALLEY DEMONSTRATION PROJECT
SITE ENVIRONMENTAL REPORT
FOR CALENDAR YEAR 1989



May 1990

West Valley Nuclear Services Company, Inc.

Rock Springs Road

West Valley, New York 14171-0191

PREPARED FOR:
U.S. Department of Energy
Idaho Operations
West Valley Project Office
Under Contract DE-AC07-81NE44139



Department of Energy

Idaho Operations Office
West Valley Project Office
P.O. Box 191
West Valley, NY 14171

Greetings:

Enclosed is the U.S. Department of Energy (DOE) West Valley Demonstration Project (WVDP) Annual Site Environmental Monitoring Report for 1989. This report contains a summary of radiological and nonradiological environmental monitoring data collected at the WVDP during the 1989 calendar year.

The Project is successfully operating its Integrated Radwaste Treatment System, which stabilizes the high-level waste supernatant fluids, and it is continuing construction and testing of the vitrification facility in an environmentally acceptable manner.

In 1989 the Project focused on managing radioactive, hazardous, and radioactive mixed wastes in accordance with current and new regulations and the Project mission. Contamination of soil in the NDA from pre-WVDP organic solvent disposal was isolated by installing an interceptor trench to prevent movement off-site. Expansion of the groundwater monitoring program has now been completed, with more wells and comprehensive analyses available to characterize the site groundwater and subsurface soils. Other site characterization studies are being conducted to gather information to be used in preparing an Environmental Impact Statement for Project completion and eventual site closure.


Collection of air, water, soil, and food chain samples provides comprehensive detection and evaluation of any radioactive or hazardous material that may migrate off-site. The Project did not exceed or even approach any regulatory limit on radioactivity or radiation dose in 1989. Nonradiological plant effluents, which are controlled and permitted by the New York State Department of Environmental Conservation (NYSDEC) and the Environmental Protection Agency (EPA), were also generally below regulatory limits. Exceptions occurred in some treated waste water discharges permitted under the New York State Pollutant Discharge Elimination System (SPDES) program.

The WVDP is continuing negotiations with New York State and the Environmental Protection Agency concerning radioactive mixed waste management activities. These negotiations are aimed at achieving a Federal Facilities Compliance Agreement that will address permitting and compliance issues and a Consent Order that will address potential corrective action. These documents are expected to be signed in early 1991.

A more complete, up-to-date treatment of the issues involving Project commitment to operating the site in compliance with environmental requirements can be found in the Environmental Compliance Summary section.

This Report fulfills many DOE and regulatory reporting requirements and demonstrates that public health and safety are being protected with respect to the operation of the WVDP and the concerns associated with the waste materials being stored there. If you have any questions, please contact me at (716) 942-4313.

Sincerely,


T. J. Rowland, Acting Director
West Valley Project Office

WEST VALLEY DEMONSTRATION PROJECT
SITE ENVIRONMENTAL REPORT

for

CALENDAR YEAR 1989

PREPARED FOR THE DEPARTMENT OF ENERGY

IDAHO OPERATIONS

WEST VALLEY PROJECT OFFICE

under

contract DE-AC07-81NE44139

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Preface

Environmental monitoring at the West Valley Demonstration Project (WVDP) is conducted by West Valley Nuclear Services Company, Inc. (WVNS), under contract to the U.S. Department of Energy. The data collected provide an historical record of radionuclide and radiation levels from natural and manmade sources in the survey area. Data also are collected to monitor the quality of air and water discharged by the Project, and wells adjacent to the site are routinely sampled.

This report represents a single, comprehensive source of off-site and on-site environmental monitoring data collected during 1989 by WVNS Environmental Laboratory personnel. Appendix A is a summary of the sampling and analysis plan. Appendices C through E contain summaries of all data obtained during 1989 and are intended for those interested in more detail than is provided in the main body of the report.

Requests for additional copies of the 1989 SITE ENVIRONMENTAL REPORT and questions concerning the report should be referred to the WVDP Community Relations Department, P.O. Box 191, Rock Springs Road, West Valley, New York 14171 (716-942-4610).

Contents

ACRONYMS	xix
EXECUTIVE SUMMARY	xxiii
PROGRAM SUMMARY	xxix
ENVIRONMENTAL COMPLIANCE SUMMARY	xxxiii
1.0 Introduction	
<i>The West Valley Site</i>	1-1
<i>Radiation and Radioactivity</i>	1-3
<i>Measuring Radiation at the West Valley Demonstration Project</i>	1-5
<i>Radioactive Waste Treatment at the West Valley Demonstration Project</i>	1-5
<i>1989 Monitoring Program at the West Valley Demonstration Project</i>	1-6
2.0 Effluent and Environmental Monitoring	
2.1 <i>Air Monitoring</i>	2-2
2.2 <i>Surface Water and Sediment Monitoring</i>	2-5
2.3 <i>Radioactivity in the Food Chain</i>	2-10
2.4 <i>Direct Environmental Radiation</i>	2-11
2.5 <i>Pollution Abatement</i>	2-15
2.6 <i>Special Monitoring</i>	2-16
3.0 Groundwater Monitoring	
3.1 <i>Geology of the West Valley Site</i>	3-2
3.2 <i>Groundwater Monitoring Program Overview</i>	3-5
3.3 <i>Groundwater Monitoring Results</i>	3-11
4.0 Radiological Dose Assessment	
4.1 <i>Introduction</i>	4-2
4.2 <i>Estimated Radiological Dose from Airborne Effluents</i>	4-4
4.3 <i>Estimated Radiological Dose from Liquid Effluents</i>	4-7
4.4 <i>Estimated Radiological Dose from all Pathways</i>	4-8
4.5 <i>Estimated Radiological Dose from Local Food Consumption</i>	4-10
4.6 <i>Statistical Analysis of Air Sampler Data</i>	4-12
4.7 <i>Conclusions</i>	4-12
5.0 Standards and Quality Assurance	
5.1 <i>Quality Control</i>	5-2
5.2 <i>Statistical Reporting</i>	5-3
5.3 <i>Environmental Standards and Regulations</i>	5-4

APPENDIX A

Effluent On-Site and Off-Site Monitoring Program

APPENDIX B

Department of Energy Radiation Protection Standards and Concentration Guides

APPENDIX C-1

Summary of Water and Sediment Monitoring Data

APPENDIX C-2

Summary of Air Monitoring Data

APPENDIX C-3

Summary of Biological Sample Data

APPENDIX C-4

Summary of Direct Radiation Monitoring Data

APPENDIX C-5

Summary of Nonradiological Monitoring Data

APPENDIX D

Summary of Quality Assurance Crosscheck Analyses

APPENDIX E

Summary of Groundwater Monitoring Data

REFERENCES

GLOSSARY

UNITS OF MEASUREMENT

DISTRIBUTION LIST

INTRODUCTION

<i>1-1. Location of the Western New York Nuclear Service Center</i>	<i>1-2</i>
---	------------

EFFLUENT AND ENVIRONMENTAL MONITORING

<i>2-1. Off-Site Air Sampler Locations</i>	<i>2-3</i>
<i>2-2. Sampling Locations for Off-Site Surface Water</i>	<i>2-6</i>
<i>2-3. Sampling Locations for On-Site Surface Water</i>	<i>2-7</i>
<i>2-4. Cesium-137 Concentrations in Stream Sediment at Two Locations Upstream and Three Locations Downstream of the WVDP</i>	<i>2-8</i>
<i>2-5. Comparison of Cesium-137 and Naturally Occurring Potassium-40 at Downstream Sampling Location SFTCSED</i>	<i>2-9</i>
<i>2-6. Sample Points in the WVDP Environs</i>	<i>2-10</i>
<i>2-7. Biological Samples near the West Valley Demonstration Project</i>	<i>2-12</i>
<i>2-8. Locations of Perimeter Thermoluminescent Dosimetry (TLDs)</i>	<i>2-13</i>
<i>2-9. Locations of On-Site Thermoluminescent Dosimetry (TLDs)</i>	<i>2-14</i>
<i>2-10. Trends of Environmental Gamma Radiation Levels</i>	<i>2-15</i>
<i>2-11. Monitoring Points for the State Pollutant Discharge Elimination System (SPDES)</i>	<i>2-18</i>

GROUNDWATER MONITORING

<i>3-1. Geological Cross Section of the North Plateau of the West Valley Site</i>	<i>3-3</i>
<i>3-2. Geological Cross Section of the South Plateau of the West Valley Site</i>	<i>3-4</i>
<i>3-3. Locations of On-Site Groundwater Monitoring Points</i>	<i>3-7</i>
<i>3-4. Locations of Off-Site Groundwater Monitoring Points</i>	<i>3-8</i>
<i>3-5. Locations of Groundwater Monitoring Points for the Low-Level Radioactive Lagoon System Unit</i>	<i>3-13</i>

3-6. Averaged 1989 Tritium Concentrations for the Low-Level Radioactive Lagoon System Unit	3-14
3-7. Tritium Concentrations at Location WNSP008 (1982-1989) at the Low-Level Radioactive Lagoon System Unit	3-14
3-8. Averaged 1989 Gross Beta Concentrations for the Low-Level Radioactive Lagoon System Unit	3-15
3-9. Gross Beta Concentrations at Location WNSP008 (1982-1989) at the Low-Level Radioactive Lagoon System Unit	3-15
3-10. Tritium and Gross Beta (1986-1989) at Well WNW86-05	3-15
3-11. Locations of Groundwater Monitoring Points for the High-Level Radioactive Waste Tank Complex and CDDL (former Cold Dump)	3-16
3-12. Averaged 1989 Tritium Concentrations for Wells Monitoring the High-Level Radioactive Waste Tank Complex	3-17
3-13. Averaged 1989 Gross Beta Concentrations for Wells Monitoring the High-Level Radioactive Waste Tank Complex	3-17
3-14. Locations of Groundwater Monitoring Points for the NRC-Licensed Disposal Area	3-18

RADIOLOGICAL DOSE ASSESSMENT

4-1. Comparison of Annual Radiation Dose to an Average Member of the U.S. Population with the Maximum Dose to an Off-Site Resident from 1989 WVDP Effluents	4-4
4-2. Ten-meter wind frequency rose	4-5
4-3. Sixty-meter wind frequency rose	4-6
4-4. Maximum Dose Equivalent from Liquid and Airborne Effluents to an Individual Residing near the WVDP	4-8
4-5. Collective Dose Equivalent for Liquids and Airborne Effluents to the Population Residing within 80 km of the WVDP	4-10
4-6. Maximum Effective Dose Equivalent to an Individual from Consumption of Food Produced near the WVDP	4-11

APPENDIX A

<i>A-1. Location of On-Site Air Effluent Points</i>	<i>A-25</i>
<i>A-2. Sampling Locations for On-Site Surface Water</i>	<i>A-26</i>
<i>A-3. Locations of On-Site Groundwater Monitoring Points</i>	<i>A-27</i>
<i>A-4. Locations of Off-Site Surface Water Samplers</i>	<i>A-28</i>
<i>A-5. Near-Site Drinking Water and Biological Sample Points</i>	<i>A-29</i>
<i>A-6. Location of Perimeter Air Samplers</i>	<i>A-30</i>
<i>A-7. Location of Off-Site Thermoluminescent Dosimetry (TLDs)</i>	<i>A-31</i>
<i>A-8. Location of On-Site Thermoluminescent Dosimetry (TLDs)</i>	<i>A-32</i>
<i>A-9. Environmental Sample Points more than 5 km from the WVDP Site</i>	<i>A-33</i>

APPENDIX C-4

<i>C-4.1. 1989 Average Quarterly Gamma Exposure Rates around the WVDP Site</i>	<i>C4-4</i>
<i>C-4.2. 1989 Average Quarterly Gamma Exposure Rates On-Site</i>	<i>C4-4</i>

APPENDIX C-5

<i>C-5.1. Location of SPDES Monitoring Points</i>	<i>C5-7</i>
<i>C-5.2. Biochemical Oxygen Demand-5 (BOD), Outfall 001</i>	<i>C5-8</i>
<i>C-5.3. Biochemical Oxygen Demand-5 (BOD), Outfalls 007 and 008</i>	<i>C5-8</i>
<i>C-5.4. Suspended Solids, Outfall 001</i>	<i>C5-8</i>
<i>C-5.5. Suspended Solids, Outfall 007</i>	<i>C5-8</i>
<i>C-5.6. Settleable Solids, Outfall 001</i>	<i>C5-9</i>
<i>C-5.7. Settleable Solids, Outfall 007</i>	<i>C5-9</i>
<i>C-5.8. Ammonia, Outfall 001</i>	<i>C5-9</i>
<i>C-5.9. Ammonia, Outfall 007</i>	<i>C5-9</i>
<i>C-5.10. Metals: Aluminum, Outfall 001</i>	<i>C5-10</i>

<i>C-5.11. Metals: Zinc, Outfall 001</i>	<i>C5-10</i>
<i>C-5.12. Metals: Arsenic, Outfall 001</i>	<i>C5-10</i>
<i>C-5.13. Metals: Cyanide, Outfall 001</i>	<i>C5-10</i>
<i>C-5.14. Metals: Iron, Outfall 001</i>	<i>C5-11</i>
<i>C-5.15. Metals: Iron, Outfalls 007 and 008</i>	<i>C5-11</i>
<i>C-5.16. Metals: Copper, Outfall 001</i>	<i>C5-11</i>
<i>C-5.17. Metals: Cadmium, Outfall 001</i>	<i>C5-11</i>
<i>C-5.18. Metals: Chromium, Outfall 001</i>	<i>C5-12</i>
<i>C-5.19. Metals: Lead, Outfall 001</i>	<i>C5-12</i>
<i>C-5.20. Nitrate, Outfall 001</i>	<i>C5-12</i>
<i>C-5.21. Nitrite, Outfall 001</i>	<i>C5-12</i>
<i>C-5.22. Sulfate, Outfall 001</i>	<i>C5-13</i>
<i>C-5.23. Oil and Grease, Outfall 001</i>	<i>C5-13</i>
<i>C-5.24. pH, Outfall 001</i>	<i>C5-13</i>
<i>C-5.25. pH, Outfalls 007 and 008</i>	<i>C5-13</i>
<i>C-5.26. Discharge Rate (MGD), Outfall 001</i>	<i>C5-14</i>
<i>C-5.27. Discharge Rate (GPD x 1000), Outfall 007</i>	<i>C5-14</i>
<i>C-5.28. Discharge Rate (GPD), Outfall 008</i>	<i>C5-14</i>
<i>C-5.29. Flow-Weighted Averages for Ammonia, Outfalls 001 and 007</i>	<i>C5-14</i>
<i>C-5.30. Flow-Weighted Averages for Biochemical Oxygen Demand-5, Outfalls 001, 007, and 008</i>	<i>C5-15</i>
<i>C-5.31. Flow-Weighted Averages for Iron, Outfalls 001, 007, and 008</i>	<i>C5-15</i>

APPENDIX E

<i>E-1. pH in Groundwater Samples from the Low-Level Radioactive Waste Lagoon Monitoring Unit</i>	<i>E-26</i>
<i>E-2. Conductivity in Groundwater Samples from the Low-Level Radioactive Waste Lagoon Monitoring Unit</i>	<i>E-26</i>
<i>E-3. Total Organic Carbon in Groundwater Samples from the Low-Level Radioactive Waste Lagoon Monitoring Unit</i>	<i>E-26</i>
<i>E-4. Total Organic Halogens in Groundwater Samples from the Low-Level Radioactive Waste Lagoon Monitoring Unit.</i>	<i>E-26</i>
<i>E-5. Nitrate-N in Groundwater Samples from the Low-Level Radioactive Waste Lagoon Monitoring Unit</i>	<i>E-27</i>
<i>E-6. Tritium Activity in Groundwater Samples from the Low-Level Radioactive Waste Lagoon Monitoring Unit</i>	<i>E-27</i>
<i>E-7. Tritium Activity in Groundwater Samples from the Low-Level Radioactive Waste Lagoon Monitoring Unit without Well 86-5</i>	<i>E-27</i>
<i>E-8. Gross Alpha Activity in Groundwater Samples from the Low-Level Radioactive Waste Lagoon Monitoring Unit</i>	<i>E-27</i>
<i>E-9. Gross Beta Activity in Groundwater Samples from the Low-Level Radioactive Waste Lagoon Monitoring Unit</i>	<i>E-28</i>
<i>E-10. Gross Beta Activity in Groundwater Samples from the Low-Level Radioactive Waste Lagoon Monitoring Unit without Well 86-5</i>	<i>E-28</i>
<i>E-11. pH in Groundwater Samples from the High-Level Waste Tank Complex Monitoring Unit</i>	<i>E-28</i>
<i>E-12. Conductivity in Groundwater Samples from the High-Level Waste Tank Complex Monitoring Unit</i>	<i>E-28</i>
<i>E-13. Total Organic Carbon in Groundwater Samples from the High-Level Radioactive Waste Tank Complex Monitoring Unit</i>	<i>E-29</i>

<i>E-14. Total Organic Halogens in Groundwater Samples from the High-Level Radioactive Waste Tank Complex Monitoring Unit</i>	<i>E-29</i>
<i>E-15. Nitrate -N in Groundwater Samples from the High-Level Radioactive Waste Tank Complex Monitoring Unit</i>	<i>E-29</i>
<i>E-16. Tritium Activity in Groundwater Samples from the High-Level Radioactive Waste Tank Complex Monitoring Unit</i>	<i>E-29</i>
<i>E-17. Gross Alpha Activity in Groundwater Samples from the High-Level Radioactive Waste Tank Complex Monitoring Unit</i>	<i>E-30</i>
<i>E-18. Gross Beta Activity in Groundwater Samples from the High-Level Radioactive Waste Tank Complex Monitoring Unit</i>	<i>E-30</i>
<i>E-19. pH in Groundwater Samples from the NRC-Licensed Disposal Area Monitoring Unit</i>	<i>E-30</i>
<i>E-20. Conductivity in Groundwater Samples from the NRC-Licensed Disposal Area Monitoring Unit</i>	<i>E-30</i>
<i>E-21. Total Organic Carbon in Groundwater Samples from the NRC-Licensed Disposal Area Monitoring Unit</i>	<i>E-31</i>
<i>E-22. Total Organic Halogens in Groundwater Samples from the NRC-Licensed Disposal Area Monitoring Unit</i>	<i>E-31</i>
<i>E-23. Nitrate-N in Groundwater Samples from the NRC-Licensed Disposal Area Monitoring Unit</i>	<i>E-31</i>
<i>E-24. Tritium Activity in Groundwater Samples from the NRC-Licensed Disposal Area Monitoring Unit</i>	<i>E-31</i>
<i>E-25. Gross Alpha Activity in Groundwater Samples from the NRC-Licensed Disposal Area Monitoring Unit</i>	<i>E-32</i>
<i>E-26. Gross Beta Activity in Groundwater Samples from the NRC-Licensed Disposal Area Monitoring Unit</i>	<i>E-32</i>

GROUNDWATER MONITORING

3-1. <i>Schedule of Groundwater Sampling and Analysis</i>	3-6
3-2. <i>Low-Level Radioactive Waste Lagoon System</i> <i>Groundwater Monitoring Wells</i>	3-9
3-3. <i>High-Level Waste Tank Complex and CDDL (former Cold Dump)</i> <i>Groundwater Monitoring Locations</i>	3-10
3-4. <i>NRC-Licensed Disposal Area Groundwater Monitoring Locations</i>	3-11
3-5. <i>Supporting Groundwater Monitoring Locations</i>	3-12
3-6. <i>Summary of Groundwater Monitoring Data for the Low-Level</i> <i>Radioactive Waste Lagoon System Unit</i>	3-13
3-7. <i>Summary of Groundwater Monitoring Data for the High-Level</i> <i>Radioactive Waste Tank Complex and CDDL (former Cold Dump)</i>	3-16
3-8. <i>Summary of Groundwater Monitoring Data</i> <i>for the NRC-Licensed Disposal Area</i>	3-18

RADIOLOGICAL DOSE ASSESSMENT

4-1. <i>Summary of Dose Assessment from 1989 WVDP Effluents</i>	4-9
---	-----

STANDARDS AND QUALITY ASSURANCE

5-1. <i>Minimum Detectable Concentrations for Routine Samples</i>	5-5
---	-----

APPENDIX C-1

C-1.1. <i>Total Radioactivity of Liquid Effluents</i> <i>Released from WVDP Lagoon 3 in 1989</i>	C1-3
C-1.2. <i>Comparison of 1989 Lagoon 3 Liquid Effluent Radioactivity</i> <i>Concentrations with Department of Energy Guidelines</i>	C1-4
C-1.3. <i>Radioactivity Concentrations in Surface Water</i> <i>Upstream of the WVDP at Fox Valley (WFBCBKG)</i>	C1-5
C-1.4. <i>Radioactivity Concentrations in Surface Water Downstream</i> <i>of the WVDP at Thomas Corners (WFBCTCB)</i>	C1-5

<i>C-1.5. Radioactivity Concentrations in Surface Water Downstream of the WVDP at Franks Creek (WNSP006)</i>	C1-6
<i>C-1.6. Radioactivity Concentrations in Surface Water Downstream of the WVDP (WNSP006)</i>	C1-6
<i>C-1.7. Radioactivity Concentrations in Surface Water Downstream of Buttermilk Creek at Felton Bridge (WFFELBR)</i>	C1-7
<i>C-1.8. 1989 Radioactivity Concentrations in Potable Well Water around the WVDP Site</i>	C1-7
<i>C-1.9. 1989 Radioactivity Concentrations in Stream Sediment around the WVDP Site</i>	C1-8
<i>C-1.10. 1989 Contribution by New York State Low-Level Waste Disposal Area to Radioactivity in the WVDP Liquid Effluents</i>	C1-8

APPENDIX C-2

<i>C-2.1. 1989 Airborne Radioactive Effluent Activity Monthly Totals from the Main Ventilation Stack (ANSTACK)</i>	C2-3
<i>C-2.2. 1989 Airborne Radioactive Effluent Activity Quarterly Totals from the Main Ventilation Stack (ANSTACK)</i>	C2-3
<i>C-2.3. Comparison of 1989 Main Stack Exhaust Radioactivity Concentrations with Department of Energy Guidelines</i>	C2-4
<i>C-2.4. 1989 Airborne Radioactive Effluent Activity Monthly Totals from the Cement Solidification System Ventilation Stack (ANCSSTK)</i>	C2-5
<i>C-2.5. 1989 Airborne Radioactive Effluent Activity Quarterly Totals from the Cement Solidification System Ventilation Stack (ANCSSTK)</i>	C2-5
<i>C-2.6. 1989 Airborne Radioactive Effluent Activity Monthly Totals from the Contact Size Reduction Facility Ventilation Stack (ANCSRFRK)</i>	C2-6
<i>C-2.7. 1989 Airborne Radioactive Effluent Activity Quarterly Totals from the Contact Size Reduction Facility Ventilation Stack (ANCSRFRK)</i>	C2-6

C-2.8. 1989 Airborne Radioactive Effluent Activity Monthly Totals from the Supernatant Treatment System Ventilation Stack (ANSTSTK)	C2-7
C-2.9. 1989 Airborne Radioactive Effluent Activity Quarterly Totals from the Supernatant Treatment System Ventilation Stack (ANSTSTK)	C2-7
C-2.10. 1989 Airborne Radioactive Effluent Activity Monthly Totals from the Supercompactor Ventilation Stack (ANSUPCV)	C2-8
C-2.11. 1989 Airborne Radioactive Effluent Activity Quarterly Totals from the Supercompactor Ventilation Stack (ANSUPCV)	C2-8
C-2.12. 1989 Radioactivity Concentrations in Airborne Particulates at the Fox Valley Air Sampler (AFFXVRD)	C2-9
C-2.13. 1989 Radioactivity Concentrations in Airborne Particulates at the Rock Springs Road Air Sampler (AFRSPRD)	C2-9
C-2.14. 1989 Radioactivity Concentrations in Airborne Particulates at the Route 240 Air Sampler (AFRT240)	C2-10
C-2.15. 1989 Radioactivity Concentrations in Airborne Particulates at the Springville Air Sampler (AFSPRVL)	C2-10
C-2.16. 1989 Radioactivity Concentrations in Airborne Particulates at the Thomas Corners Air Sampler (AFCTCORD)	C2-11
C-2.17. 1989 Radioactivity Concentrations in Airborne Particulates at the West Valley Air Sampler (AFWEVAL)	C2-11
C-2.18. 1989 Radioactivity Concentrations in Airborne Particulates at the Great Valley Air Sampler (AFGRVAL)	C2-12
C-2.19. 1989 Radioactivity Concentrations in Airborne Particulates at the Dunkirk Air Sampler (AFDNKRK)	C2-12
C-2.20. 1989 Radioactivity Concentrations in Airborne Particulates at the Dutch Hill Air Sampler (AFBOEHN)	C2-13
C-2.21. 1989 Radioactivity in Fallout	C2-14
C-2.22. pH of Precipitation Collected in Fallout Pots	C2-15

APPENDIX C-3

<i>C-3.1. Radioactivity Concentrations in Milk (1989)</i>	C3-3
<i>C-3.2. Radioactivity Concentrations in Meat (1989)</i>	C3-4
<i>C-3.3. Radioactivity Concentrations in Food Crops (1989)</i>	C3-4
<i>C-3.4. Radioactivity Concentrations in Fish from Cattaraugus Creek (1989)</i>	C3-5

APPENDIX C-4

<i>C-4.1. Summary of Quarterly Averages of TLD Measurements (1989)</i>	C4-3
--	------

APPENDIX C-5

<i>C-5.1. West Valley Demonstration Project Environmental Permits</i>	C5-3
<i>C-5.2. West Valley Demonstration Project SPDES Sampling Program</i>	C5-5
<i>C-5.3. West Valley Demonstration Project 1989 SPDES Noncompliance Episodes</i>	C5-6

APPENDIX D

<i>D-1. Comparison of Radiological Concentrations in Quality Assurance Samples Between WVDP and EML for QAP 8904 Samples</i>	D-3
<i>D-2. Comparison of Radiological Parameters in Quality Assurance Samples Between WVDP and EMSL (USEPA) in 1989</i>	D-4
<i>D-3. Comparison of Radiological Concentrations in Quality Assurance Samples Between WVDP and NIST for 1989 INEL QA Samples</i>	D-6
<i>D-4. Comparison of Water Quality Parameters in Quality Assurance Samples Between WVDP and NYSDOH, January 1989</i>	D-7
<i>D-5. Comparison of Water Quality Parameters in Quality Assurance Samples Between WVDP and NYSDOH, July 1989</i>	D-8
<i>D-6. Comparison of WVDP Thermoluminescent Dosimeters (TLDs) to Co-located NRC TLDs</i>	D-9

APPENDIX E

<i>E-1. Supporting Groundwater Monitoring Stations Sampled in 1989</i>	E-3
<i>E-2. 1989 Fuel Tank Groundwater Monitoring</i>	E-4

Tables

<i>E-3. 1989 Water Quality Parameters for the High-Level Waste Tank Complex Groundwater Monitoring Unit</i>	<i>E-5</i>
<i>E-4. 1989 Total Metals for the High-Level Waste Tank Complex Groundwater Monitoring Unit</i>	<i>E-7</i>
<i>E-5. 1989 Dissolved Metals for the High-Level Waste Tank Complex Groundwater Monitoring Unit</i>	<i>E-9</i>
<i>E-6. 1989 Radioactivity Concentrations for Groundwater in the High-Level Radioactive Waste Tank Complex Monitoring Unit</i>	<i>E-11</i>
<i>E-7. 1989 Water Quality Parameters for the Low-Level Radioactive Waste Lagoon System Monitoring Unit</i>	<i>E-13</i>
<i>E-8. 1989 Total Metals for the Low-Level Radioactive Waste Lagoon System Groundwater Monitoring Unit</i>	<i>E-15</i>
<i>E-9. 1989 Dissolved Metals for the Low-Level Radioactive Waste Lagoon System Groundwater Monitoring Unit</i>	<i>E-17</i>
<i>E-10. 1989 Radioactivity Concentrations for Groundwater in the Low-Level Radioactive Waste Lagoon System Monitoring Unit</i>	<i>E-19</i>
<i>E-11. 1989 Water Quality Parameters for the NRC-Licensed Disposal Area Groundwater Monitoring Unit</i>	<i>E-21</i>
<i>E-12. 1989 Total Metals for the NRC-Licensed Disposal Area Groundwater Monitoring Unit</i>	<i>E-22</i>
<i>E-13. 1989 Dissolved Metals for the NRC-Licensed Disposal Area Groundwater Monitoring Unit</i>	<i>E-23</i>
<i>E-14. 1989 Radioactivity Concentrations in the NRC-Licensed Disposal Area Groundwater Monitoring Unit</i>	<i>E-24</i>
<i>E-15. Summary of Special NDA Well Sampling Positive Results</i>	<i>E-25</i>

Illustrations

The West Valley Demonstration Project Site xxii

NYSDEC Assists in Fish Sample Collection xxviii

Examining Tritium Counter Data xxxii

Analyzing SPDES Water Quality Samples xxxii

Collecting a Composite Surface Water Sample 2-1

Collecting a Groundwater Screening Sample 3-1

Cattaraugus Creek at the Springville Dam 4-1

Logging in a Crosscheck Sample 5-1

Hoping for a Large Fish Sample facing page A-1

Collecting a Composite Water Sample at the Boundary facing page C-1

Weekly Visit to a Perimeter Air Sampler facing page C-2

Biological Sample facing page C-3

Changing a Perimeter TLD facing page C-4

Surface Water Sampling facing page C-5

The Environmental Laboratory facing page D-1

Collecting a Groundwater Sample facing page E-1

Acronyms

ANOVA.	Analysis of Variance
ALARA.	As Low As Reasonably Achievable
BEIR.	Committee on Biological Effects of Ionizing Radiation
CDDL.	Construction and Demolition Debris Landfill (formerly the “cold dump”)
CERCLA.	Comprehensive Environmental Response, Compensation, and Liability Act
CSS.	Cement Solidification System
DCG.	Derived Concentration Guide
DE.	Dose Equivalent
DOE.	Department of Energy
DOE-HQ.	Department of Energy, Headquarters Office
DOE-ID.	Department of Energy, Idaho Operations
EA.	Environmental Assessment
EE.	Environmental Evaluation
EIS.	Environmental Impact Statement
ELAP.	Environmental Laboratory Accreditation Program
EML.	Environmental Measurements Laboratory
EMSL.	Environmental Monitoring Systems Laboratory (Las Vegas)
EPA.	Environmental Protection Agency
FONSI.	Finding of No Significant Impact
FY.	Fiscal Year
HLW.	High-level Radioactive Waste
ICRP.	International Commission on Radiological Protection
INEL.	Idaho National Engineering Laboratory
IRTS.	Integrated Radwaste Treatment System
LLD.	Lower Limit of Detection
LLW.	Low-level Radioactive Waste
LLWTF.	Low-level Liquid Waste Treatment Facility
LWTS.	Liquid Waste Treatment System

MDC. Minimum Detectable Concentration

NCRP. National Council on Radiation Protection and Measurements

NDA. Nuclear Regulatory Commission Licensed Disposal Area

NEPA. National Environmental Policy Act

NESHAP. National Emission Standards for Hazardous Air Pollutants

NIST. National Institute of Standards and Technology

NFS. Nuclear Fuel Services Company, Inc.

NOI. Notice of Intent

NRC. Nuclear Regulatory Commission

NWPA. Nuclear Waste Policy Act

NYSDEC. New York State Department of Environmental Conservation

NYSDOH. New York State Department of Health

NYSERDA. New York State Energy Research and Development Authority

NYSGS. New York State Geological Survey

OSR. Operational Safety Requirement

QA. Quality Assurance

QAP. Quality Assurance Program

QC. Quality Control

RCRA. Resource Conservation and Recovery Act

RMW. Radioactive Mixed Waste

SAR. Safety Analysis Report

SI. International System of Units

SPDES. State Pollutant Discharge Elimination System

STS. Supernatant Treatment System

TLD. Thermoluminescent Dosimeter

USGS. U.S. Geological Survey